# REPORT

OF THE

# CANADIAN ARCTIC EXPEDITION 1913-18

## VOLUME IX: ANNELIDS, PARASITIC WORMS, PROTOZOANS, ETC.

### PART D: GEPHYREA

By RALPH V. CHAMBERLIN

## SOUTHERN PARTY—1913-16

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OTTAWA
J. de LABROQUERIE TACHÉ
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1920

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Part A: OLIGOCHAETA.
Lumbriculidae. By Frank Smith.
Enchytraeidae. By Paul S. Welch.....*(Issued September 29, 1919).*

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Part D: GEPHYREA. By Ralph V. Chamberlin.....*(In press).*

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# The Gephyrea collected by the Canadian Arctic Expedition, 1913-18.

By Ra ph V. Chamberlin

*Museum of Comparative Zoo , Cambr dge, Mass.*

The collection embraces but four specimens c ae Gephyrea, these having been taken from the stomachs of fish at two widely separated stations. All belong to one species, the widespread northern *Pria ulus humanus* (Linné). In addition some other Gephyreans were received for study from the Geological Survey, and notes upon these are here included. They represent six species, the *Priapulus* mentioned above, and five Sipunculids,—*Physcosoma agassizi* (Keferstein), *Physcosoma japonicum* (Grube), *Phascolion strombi* (Montagu), a previously undescribe' *aascolosoma*, and *Phascolosoma eremita* (Sars).

## PRIAPULIDAE.

### Priapulus humanus (Linné).

*1758. Priapus humanus* Linné. Syst. Nat., ed. 10, p 656.
*1766. Holothuria priapus* Linné. Syst. Nat., ed. 12, p. 1901.
*1816. Priapulus caudatus* Lamarck. Hist. Nat. Anim. sans Vertéb, p. 77.
*1845. Priapulus hibernicus* McCoy. Ann. Mag. Nat. Hist., ser. 1, 15, p. 272.

Two specimens were taken from the stomach of a nine and a half inch long female *Gymnocanthus pistilliger* Gill at Bernard harbour, Northwest Territories, June 14, 1916, at Station 49 *f*. The larger of these is 6 centimeters long, inclusive of the fully protruded proboscis and exclusive of the branchial filaments, with a diameter of 1·1 centimeters. The second specimen is only about 1·8 centimeters long. Two other small specimens were taken from a *Pleuronectes stellatus* Pall. at Grantley harbour, Alaska, July 31, 1913 (Station 20 *d*). Besides the specimens secured by the Canadian Arctic Expedition there is in the collection a fine specimen, 10 centimeters long, taken on the beach of Hudson bay at Fort Churchill, Keewatin, by James M. Macoun, October, 1910.

## SIPUNCULIDAE.

### Phascolosoma hudsonianum, n. sp.

Type specimen.—Catalogue No. 101, Victoria Memorial Museum, Ottawa. One specimen.

Body proper, i.e., from the anus caudad, slenderly subpyriform, with a conspicuous pointed caudal appendage abruptly set off, anteriorly uniform in width with the proboscis. In the type the length to the tip of caudal appendage is 3·4 times the greatest width. Body about one and a half times the length of the proboscis. Body light brown, in general appearing shining and of a somewhat pearly lustre; but papillae are visible upon close inspection even with the naked eye over the entire surface, the papillae obviously densest at caudal end and over the narrow appendage and near level of and just in front of the anus where also the skin is more obviously reticulate; s a more strongly rugose on caudal surface. Papillae subconic with base bro . No hooks present on the pro-

boscis, the latter more rugose toward tentacles. Tentacles in several rows. Openings of segmental organs distinct. Body wall thin, in part translucent, the inner surface with pearly lustre, muscle layer uniform, with no trace of division into strands. Four retractor muscles present, of which the dorsals are very much more slender posteriorly than the ventrals: ventrals taking their origin about midway between anus and caudal tip of body and the dorsals about five-twelfths the distance from anus to level of origin of ventrals. Segmental organs elongate, free, opening near level of anus. Coils of intestine numerous, wholly free excepting anteriorly. Total length of type, inclusive of extended proboscis, 116 mm.: of body proper from anus to caudal tip 70 mm.; distance from anus to tentacles, 46 mm. Greatest width 17 mm; width at level of anus, 7·3 mm. Length of caudal appendage, 7 mm.; width at base, near 3·6 mm.

LOCALITY.—Hudson bay: Fort Churchill, October, 1910. James M. Macoun. One specimen.

### **Phascolosoma eremita** (Sars)

*1851. Sipunculus eremita* SARS, Nyt. Mag. for Naturvidensk., p. 197.
*1865. Sipunculus (Phascolosomum) borealis* QUATREFAGES, Hist. nat. Anneles, 2, p. 620.
*1867. Phascolosoma boreale* KEFERSTEIN, Nach. d. k. Ges. d. Wiss. Göttingen, No. 7, p. 206.
*1877. Phascolosoma eremita* KOREN and DANIELSSEN, Fauna litt. Norvegiae, 3d Heft., p. 134 pl. 15 f. 45.

A form widespread in northern regions, having been recorded at various stations from Greenland eastward to the Kara sea, the range extending southward along the European coast to the North sea and along the North American coast to Massachussetts or in deeper water even farther south (40° N. lat.) A specimen was collected by the biological launch *Prince* at Station 4, in Passamaquoddy bay, N.B., October 8, 1917, at a depth of 25 to 30 meters.

### **Phascolion strombi** (Montagu).

*1804. Sipunculus strombus* G. MONTAGU, Trans. Linn. Soc. London, 7, p. 74.
*1828. Siphunculus dentalii* GRAY, Spicilegia zoologica, p. 8.
*1841. Sipunculus bernhardus* FORBES, Hist. British Starfishes, p. 251.
*1843. Sipunculus capitatus* H. RATHKE, Nova Scotia Acad. Leop. Car. 29, p. 143, pl. 6, fl. 20-23.
*1844. Sipunculus (Phascolosoma) concharum* OERSTED, De regionibus marinis, p. 80; also Kröyer's Naturh. Tidskr., 1844, p. 419.
*1865. Sipunculus (Cryptosomum) caementarium* QUATREFAGES, Hist. nat. des Anneles, 2, p. 628.
*1867. Phascolosoma hamulatum* PACKARD, Mem. Bost. Soc. Nat. Hist. 2, p. 290.
*1873. Phascolosoma tubicola* VERRILL, Amer. Journ. Sci. and Arts, ser. 3, 5, p. 99.
*1875. Phascolion spitzbergense* THEEL. Bihang till k. Svenska Vet. Akad. Handl., 3, p. 16, pl. 1, ff. 2, 3.

A species widespread and abundant in the north Atlantic and Arctic regions. In the collection submitted for study is a number of specimens of this form collected by the biological launch *Prince* in Passamaquoddy bay, N.B. They were taken on a muddy bottom at a depth of twenty-five to thirty meters on October 8, 1917, and were found inhabiting shells of *Apporrhais occi-*

*dentalis* Beck and *Thais lapillus* Linné. Also several specimens apparently of this species but which unfortunately had become dried out through evaporation of the preserving fluid were found in tubes of *Cistenides granulata* in Dolphin and Union strait, (Canadian Arctic Expedition Station 43 *a*, *b*), September, 1915, 25 to 50 fathoms.

## Physcosoma japonicum (Grube).

*1877. Phascolosoma Japonicum* GRUBE, Jahresber. der Schles. Ges. vaterl. Cultur. 54, p. 73.

*1883. Phymosoma japonicum* SELENKA. Die Sipunculiden, p. 76. pl. 2. f. 18-19. pl. 10. f. 145-146.

A number of nicely preserved specimens of this species were collected by W. Spreadborough at Ucluelet on the west side of Vancouver island, British Columbia, in May, 1909. This species has been previously recorded, aside from the shores of Japan, from Mergui on the gulf of Bengal, Australia (Sydney), Fiji, and the Queen Charlotte islands, (Sec. Hérubel, Mem. Soc. Zool. France, 1907, p. 218).

## Physcosoma agassizii (Keferstein).

*1866 Phascolosoma agassizii* KEFERSTEIN, Nach. k. Ges. Wiss. Göttingen, p. 4.

A well preserved partly grown specimen of this species is in the collection transmitted for study along with that of the Canadian Arctic Expedition. The colour markings are exceptionally distinct, these consisting of large black pigment spots on the dorsal surface of the body and of parallel transverse stripes across the dorsal and upper lateral surface of the proboscis, those just proximad of the tentacles being deepest. The papillae and other external features are typical.

LOCALITY.—British Columbia: Queen Charlotte islands, Skidegate channel, low tide. 1910. Wm. Spreadborough, collector.

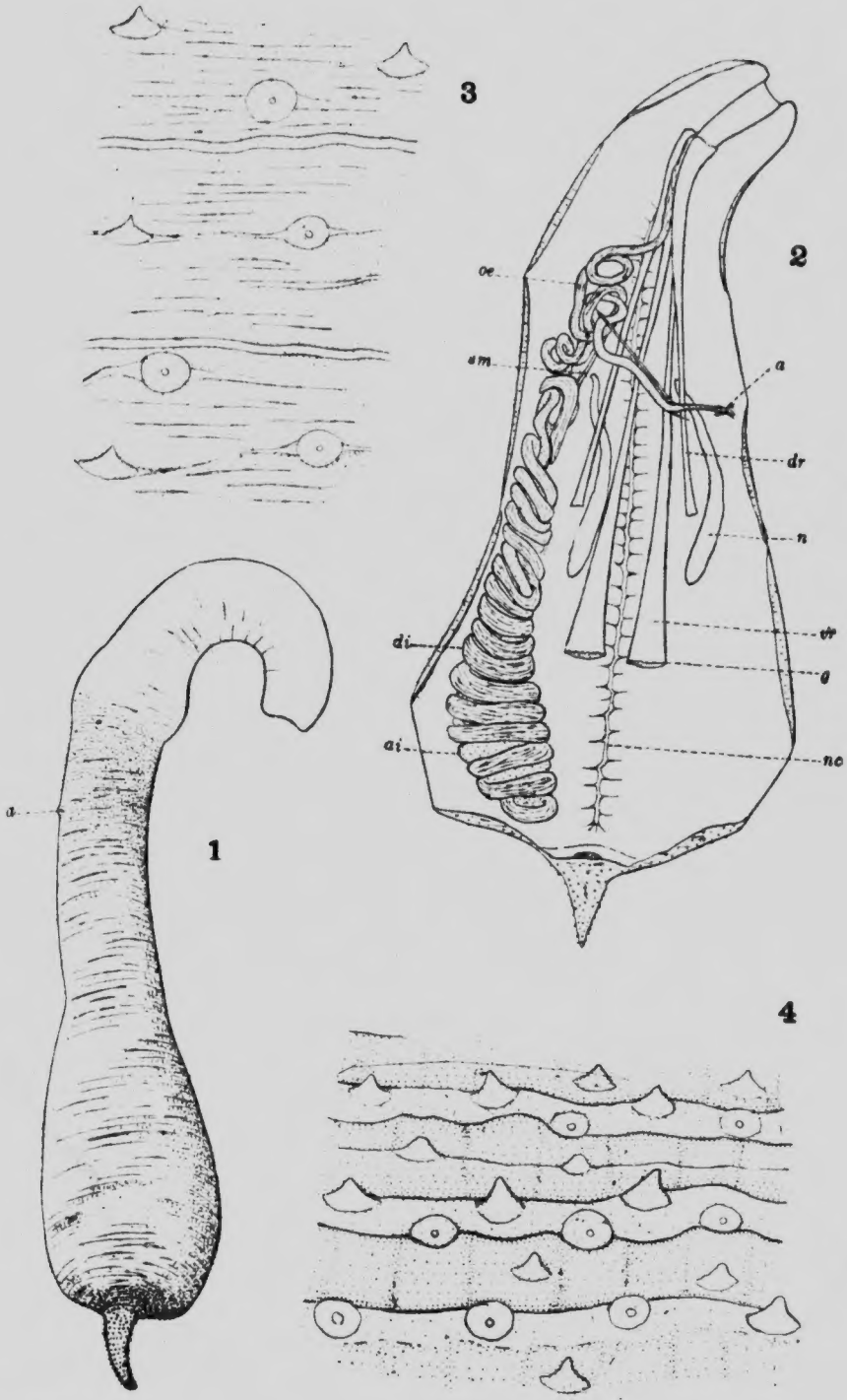
## EXPLANATION OF PLATE.

Fig. 1. *Phascolosoma hudsonianum*, n. sp. side view, distal end of proboscis retracted.

Fig. 2. *Phascolosoma hudsonianum*, n. sp., dissection, dorsal view. a. anus; oe. oesophagus; di. descending coils of intestine; ai. ascending coils of intestine; sm. spiral muscle; dr, dorsal retractors; vr, ventral retractors; g, reproductive festoons; n, nephridia; nc, nerve cord.

Fig. 3. *Phascolosoma hudsonianum*, n. sp., portion of skin about two centimeters from caudal end.

Fig. 4. *Phascolosoma hudsonianum*, n. sp., portion of skin from caudal surface.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## A BIBLIOGRAPHY OF THE GEPHYREA


Abildgaard, P. E.
1789. Beschreibung zween arten des Steinbohrers. Shrift. der Gesellsch. naturf. Freunde zu Berlin, 9, p. 133.

Alder, J.
1860. Descriptions of a Zoophyte and two species of Echinodermata new to Britain. Ann. Mag. Nat. Hist., ser. 3, 5, p. 73-75, pl. 5. (Phascolosoma).

Andreae, J.
1881. Zur Anatomie des Sipunculus nudus L. Zool. Anz. 4, p. 477.
1882. Beiträge zur Anatomie und Histologie des Sipunculus nudus. Zeit. f. wiss. Zool., 36, p. 201-258.

Andrews, E. A.
1889. Reproductive organs of Phascolosoma gouldii. Zool. Anz., 12, p. 146.
1890a. Notes on the Body-cavity liquid of Sipunculus gouldii. Johns Hopkins Univ. Circular, p. 65.
1890b. Notes on the Anatomy of Sipunculus gouldii. Studies Biol. Lab. Johns Hopkins Univ., p. 389.

Annandale, N., and Kemp, S.
1915. Fauna of Chilka Lake. The Echiuroidea of the Lake and of the Gangetec Delta. Mem. Ind. Mus., Calcutta, 5, p. 55-63.

Appel, W.
1885. Beitrag zur Anatomie und Histologie des Priapulus caudatus und des Halicryptus spinulosus. Zeit. wiss. Zool. 42, p. 459-529, pl. 15-17.

Augener, H.
1903. Beiträge zur Kenntniss der Gephyreen nach Untersuchungen der im Gottingen zool. Museum befindlichen Sipunculiden und Echiuriden. Arch. Naturg., 69, pp. 297-371, pl. 16-20.
1906. Westindische Polychaeten. Blake reports, 42. Bull. M. C. Z., 43, p. 193-196, pl. 8.

Baird, W.
1868. Monograph of the Species of Wormus belonging to the subclass Gephyrea. Proc. Zool. Soc. London, p. 77-114, pl. 9-11.
1870. Description of some new species of Annelida and Gephyrea in the collection of the British Museum. Journal of the Linn. Soc., London, p. 97.

Baltzer, F.
1912. Über die Entwicklungsgeschichte von Bonellia. Verh. deutsch. zool. Ges. Vers., 22, p. 252-261, 10 fig.
1914. Entwicklungsgeschichte und Metamorphose des Echiurus. Verh. schweiz. nat. Ges., Tl. 2, p. 208-212.

Barbut, J.
1783. Genera Vermium.

Benham, W. B.
1904. The Sipunculids of New Zealand. Trans. and Proc. New Zealand Inst., 36, p. 172-184.
1905. Further notes on the Sipunculids of New Zealand. Op. cit., 37, p. 301-308.
1912. Invertebrates from the Kermadec Is. Trans. and Proc. New Zealand Inst., 44, p. 135-138.

Bianchi, G. (Turnus Planeus)
1760. De Conchis minus not.

Blainville, H. M. D. de.
1827. Dict. sci. nat., Vers., 49.

Blanchard, E.
1849. Recherches sur l'organisation des Vers, Ann. sci. nat., ser. 3, 12.

Bleslovski, R.
1910. Beiträge zur Kenntniss des Bonellia viridis und der Phylogenie einiger Coelhelminthen, Vloclavek. Bern phil. Dissert. p. 1-69.

Bohadsch, J. B.
1761. De quibusdam animalibus marinis Liber. Dresden. 4, cap. 5, p. 93-97. pl. 7, f. 6-7.

Bosc, L. A. G.
1802. Hist. nat. des Vers, 2.

Bouvier, E. L.
1894. Un nouveau cas de commensalisme: association d'Aspidosiphon avec des polypiers madréporaires et un Mollusque bivalve. C.R. Acad. sci. Paris, p. 95.

Brandt, A.
1835. Prodrom. descript. animal. a Mertensio observat., Fasc. 1, p. 62 (also in Lamarck, Anim. s. vertebr., ed. 2, 3, p. 472).
1870. Anatomisch-histologische Untersuchungen über den Sipunculus nudus L. Mem. de l'Acad. impér. de St. Petersbourg. ser. 7, 17.

Bruguière, J. G.
1791. Encyc. method.

Brumpt, E.
1897. Quelques faits relatifs à l'histoire du Phascolion Strombi Montagu. Arch. zool expér. et géner., ser. 3, 5, p. 483.
Bureau, L.
1898. Coup d'oeil sur la faune du department de la Loire-Infér. Nantes et la Loire-Infér; II, Session de Nantes du Congres de l'Asso. française Avanc. des Sci, II et III, p. 15.
Buytendyk, F. J.
1909a. Zur Physiologie der Urnen von Sipunculus nudus. Biol. Centralbl, 29, p. 365-369
1909b. Beitrage zur Muskelphysiologie von Sipunculus nudus. Biol Centralbl., 29, p 753-759.
Capobianco, F.
1900 Della influenza di agenti fisico-chemici sovra la eccitabilità dei nervi e dei muscoli lisci negl'invertebrati: Richerche experimentali. Rend. Acc. Napoli ser. 3, 6, p. 237-239
Carus, C. G.
1863. In Handbuch der Zoologie von Peters. Carus und Gerstaecker, p. 450.
1884. Prodromus faunae mediterraneae sive descriptio animalium maris mediterraneae incolarum. Pars 1
Catta, J. D. (and Marion
1875. Du male planariforme de la Bonellie. Revue Sciences nat. de Dubreil, 4, no. 3, p 313-319, pl. 7. (Transl. of Russian article by Kowalevsky, 1870, w. additions by Marion
Chamberlin, R. V.
1919. Notes on the Sipunculids of Laguna Beach. Pomona Coll. Jour. of Ent. & Zool. (Adv. Reprint from Mar., 1920, issue. Aug., 1919, p. 30-31 .
Chamisso, A. de, and Eysenhardt, C. G
1821. De animalibus quibusdam e classe vermium linneana, etc. Nov. Act. Phys. Med. Acad. C. L. C. naturae curiosorum, 10, p. 343-374
Chiaji, S. delle.
1823. Mem. sulla Storia e Not. degli Animali senza Verteb.
1828. Su la notomia e la classificazione del Sifunculo nudo di Linneo. Atti del R. inst d'Incorragiiam. alle Sc. nat di Napoli. 4.
Claparéde, E.
1861. Beitrag zur Kenntniss der Gephyrea. Müller's Archiv f. Anat. und Physiol
1863. Beitrag zur Kenntniss der Geschlechtsverhaltnisse bei den Sipunculiden. Beobacht uber Anat. u. Entwicklungsgeschichte wirbell. Thiere.
Collin, A.
1891. Über Echiurus chilensis Max Müller. Zool. Anz., 14, p. 463-464
1892. Gephyreen gesammelt von Herrn Stabarzt Dr. Sander wahrend der Reise S.M.S. "Prinz Adalbert." Archiv Naturg., 58, p. 140.
1901. Die Gephyreen der deutschen Expedition des S.M.S. "Gazelle." Archiv Naturg., 67 (Festschrift), p. 299.
Conn, H. W.
1886. Life History of Thalassema Stud. Studies Biol. Lab. Johns Hopkins Univ., 3, p. 351-401.
Costa, A.
1869. Di un nuovo genere di Chetognati, and Di un genere di Siponculidei. Ann. del Mus. zool. d. R. Univ. di Nap. (1865). 5, p. 54-57, pl. 3
1853. Fauna del Regno di Napoli. Echinodermi apodi. p. 17-20, pl. 2
Coupin, H.
1903. Les Gephyriens. La Nature, 31, p. 91-92, 1 f.
Cuenot, M. L.
1889. Formation des Produits Génitaux par les Glandes Lymphatiques (invertebres). C R. Ass. Fr. Sci., 1889, 2, p. 581-586 (Gephyr. p. 583-584).
1891. Etudes sur le sang et les glandes lymphat., (2e partie). Archiv. Zool. expérim. et gén., (2), 9, p. 593.
1897. Les globules sanguins [illegible] organes lymphoïdes des Invértébres. Archiv. Anat. microsc., 8, p. 153.
1900. Le Phascolosome comm[illegible] (Phascolosoma vulgare de Blainville). Zool. descriptive. O. Doin. Paris.
1902a. Organes agglutinants et Organes cilio-phagocytaires. Archiv. Zool. expérim. et gén., ser. 3, 9, 10, p. 79.
1902b. Contrib. a las faune du bassin d'Arcachon; Echiuriens et Sipunculiens. Bull. Soc. scient. d'Archachon. Stat. biol.
1913. Excretion et phagocytose chez les sipunculiéns. C.R. Soc. Biol. Paris, 74, p. 159-161.
Cuvier, G.
1805. Leçons d'anatomie comparée.
1830. Régne animal, ed. 2, 3.
Danielssen, D. C.
1861. Beretning om en Zool. Reise 1857. Nyt. Magaz. f. Naturvid.

Danielssen, D. C., and Koren, J
1880. Fra den Norske Nordhavs expedition (Gephyreer). Nyt mag f. Naturvid., 26, p. 44-66, 1 pl
1881 Den Norske Nordhavs expedition (1876-1878). Gephyrea
Delage, T. et Herouard, E
1897. Traité de Zoologie concrète, 5, Les Vermidiens
Diesing, C. M
1851. Systema helminthum, vol. 2.
1858. Icon. Zoograph. Ferdinand I, Imperator
1859. Revision der Rhyngodeen. Sitzungsber. Akad. Wiss Wien math.-naturw Kl., 37
Dogiel, V. A
1916. Sur la Fonction des "Vésicules enigmatiques" du sang de Sipunculus nudus Rev. zool. russe., 1, p. 6-8
Drasche, R. von
1880. Zur Kenntniss des Baues der Segmentalorgane bei Echiuren. Zool Anz., 4, p 517-519.
1881 Über eine neue Echiurus-Art aus Japan nebst Bemerk. uber Thalassema erythrogrammon Leuckart von der Insel Bourbon. Verh. z.b. Ges. Wien, 30, p 621-628, pl 20
Duben, M. W. von.
1844 Norriges Echinodermer. Öfvers. af K. Vet. Akad. Forh
Dubois, R
1907. Action de la lumière sur le pigment fluorescent de Bonellia viridis et emission de pigment par certains vers marins exposés à la lumière solaire. C.R Soc. Biol. Paris, 62, p. 654-655.
Dujardin, F.
1846. In. Lamarck, Anim. s. vert., 3
1840. Id. ed. 2, 3
Edwards, Milne.
1840. Régne animal, Zoophytes, pl. 21, f. 3-5
1870 Leçons sur la Physiologie et l'Anatomie comparée
Ehlers, E.
1861a. Über Halicryptus spinulosus. Zeit. wiss. Zool., 11, p. 205-252
1861b. Über d. Gattung Priapulus, op. cit., 11, p. 401-413
1871. On the Vermes collected by Mr. von. Heughlin in the Sea of Spitzbergen. Ann nat Hist., 8, p. 53.
Eisig, H.
1890. Biologische Studien angestellt in der zool. Stat. Neapel. Kosmos, v. Ausdehnbarkeit des Bonellia—Riéssels, 13, p. 128-129
Embleton, A. L.
1900. On the Structure and Affinities of Echiurus unicinctus. Trans Linn. Soc London, (2). Zool., 8, p. 77-97, 4 pls., 1 f.
Enriques, P.
1902. Note fisiologiche sur Sipunculus nudus. (Unione zool. ital.). Monit. zool. ital, 13. Suppl., p. 51-52.
1903 I corpi pigmentati del Sipunculus nudus. Arch. zool. Napoli., 1, p. 253-287, 1 pl
1906. Sur les vaisseaux du Sipunculus nudus. Arch. Zool. exper. (4), 4, p. xxiii-xxvi
Fabre-Dumerque.
1887. Sur l'Infusoire Parasite de la cavité générale de Sipunculus nudus. C.R. Ass Fr. Sci., 1886, pt. 2, p. 593-596, pl. 13.
Fabricius, O.
1780. Fauna Groenlandica
Farran
1851. Thalassema neptuni. Ann. Mag. Nat. Hist., ser 2, 7, p 156
Farran, G. P
1915. Results of a biol. survey of Blacksod Bay, Co. Mayo Fisheries Ireland Sci Investig., No. 3, p. 1-72
Ferroniere, G.
1901. Etudes biol. sur la faune supralittorale de la Loire-Infér. Bull. Soc. Sc. nat. de l'Ouest.
Fischer, W.
1892. Übersicht der von Herrn Dr. F. Stuhlmann auf Sansibar und an der gegenuberliegenden Festlandes Kuste gesammelten Gephyreen. Jahrb. wiss. Anst. Hamburg, 9, p. 11.
1893. Weitere Beiträge zur Anatomie und Histologie des Sipunculus indicus Peters. Jahrb. Hamburg Anat., 10, p. 1-12, 1 pl.
1894. Über kiemenartige Organe einiger Sipunculus-Arten. Zool. Anz., 17., p. 333-335
1895. Des Gephyriens du Museum d'histoire naturelle de Hambourg. Abh. Nat. Ver. Hamburg, 13, no. 1, p. 24.
1896a. Ergeb. Hamburgh. Magalhaen. Sammelreise, I. Gephyreen. p. 75.
1896b. Gephyreen, in Semon's Zool. Forschungsreise in Australien und dem Malayischen-Archipel. 5, p. 3

Fischer, W.—*Concluded*
1913. Über einige Sipunculiden a. . aturhistorischen Museums zu Hamburg, Mitth nat Mus. Hamburg, Jahrb 30, Beih. 2, p. 93-101, 1 pl
1914a. Die Sipunculoideen der Nord-und Ostsee unter Berücksichtigung von Formen des Nordatlantischen Gebietes. Wiss. Meeresunters Kiel., n.s., 16, p. 85-127. pl 1.
1914b. Gephyrea, in Beitr. z. Kenntn. d. Meeresfauna Westafrikas. Lief. 1, p. 57-84. pl. 2
1916. Die Gephyreenausbeute der Deutschen Tiefsee-Exped. (1898-1899) (Vorl. Mitt.) Zool. Anz., 48, p. 14-20

Fuchs, R. F
1910. Die elektrischen Erscheinungen am glatten Muskel. Arch. ges. Physiol., 136, p 65-100, 2 pl

Fleming, J
1828. A history of British Animals

Florentin, R
1902. On Cuenot's paper on "Org agglutinants et org. cilio-phagocytaires," Arch Zool exper., ser. 3, 10, p. 79-99; and Année Biol., 7, p 334-335

Forbes, E.
1841. A history of British Starfishes, p 263

Forbes, E., and Goodsir, J
1841. On the natural history and anatomy of Thalassema and Echiurus. Edinburgh New Philos. Journ., 30, pl 7

Frey, H. and Leuckart, R
1847. Beitrage zur Kenntniss wirbelloser Thiere, p. 40-45. (R. Wagner's Lehrbuch der Zootomie, 2

Gadd, G. G.
1911. Verzeichnis der Gephyreen des Kola-Golfes und Zwei neue Species der Phascolosoma Trans. soc. Nat C.r. seances St. Petersb. 42, p. 79-93 (German resume, p. 102-105), pl. 1

Gadeu de Kerville, H.
1894. Recherches sur les faunes marine et maritime de la Normandie, 1er voyage: Région de Granville et des Iles Chausey. Bull. Soc. des Amis des Sc. nat. Rouen, 1er Semestre.

Geddes, P.
1879. Sur le chlorophylle animale, etc. Archiv. zool. expér., p. 58

Gerould, J. H
1900. Observations upon the Development of Phascolosoma. Science, n.s., 11, p 173-174
1903. Studies on the Embryology of the Sipunculidae. I. The Embryonal Envelope and its Homologue. Mark Anniv. Vol. p. 437-452, 1 pl.
1904a. A key to the Development of Sipunculus nudus. Amer. Natural., 38, p. 493-494
1904b. The Development of Phascolosoma. Archiv. Zool. expér. et gen. (4), II Notes et review, No. 3, pp. xvii-xxix
1906. The Development of Phascolosoma. (Studies on the Embryology of the Sipunculidae, II), Zool. Jahrb., Abth. Anat., 23, p. 77-162, pl. 4-11.
1908. A comparison of the Cephalic Organs in Certain Sipunculids. Sci., n.s., 27, p. 488-489.
1913. The Sipunculids of the Eastern Coast of North America. Proc. U.S. Nat. Mus., 44, p. 373-437, 5 pls., 16 f

Gineste, Ch.
1901a. Quelques particularités des Sipunculides. Actes Soc. Linn. Bordeaux. 56, p. clxiii-clxv.
1901b. Sur les vésicules énigmatiques de la cavité générale du Phymosoma granulatum. Procès verb. Soc. Linn. Bordeaux, 56, p. xxxi
1903a. Quelques caracteres physiologiques des urnes Siponculides. Actes Soc. Linn. Bordeaux, 58, p. xxiv-xxvii.
1903b. Sur la structure histologique des canaux oesophagiens du Siponcle. Op. cit., 58, p civ-cxviii . f
1903c. Quelques observations sur les vésicules énigmatiques de la cavité générale du Siponcle Op. cit., 58, p. clxviii-clxxi, 1 f.
1903d. Etude des urnes libres de la cavité générale du "Sipunculus nudus.", Op cit., 58, p. clxxiv-clxxxiv, 2 f

Gmelin, J. F.
1789. Linné Syst. Nat. 6

Goodrich, E. S.
1909. Notes on the nephridia of Dinophilus and of the larvae of Polygordius, Echiurus and Phoronis. Quart. J. Microsc. Sci. London, 54, p. 11-118, pl. 8.

Gosse, P. H.
1853. Rambles of a nat. on the Devonshire Coast. Notes on new or little known marine animals, Ann. Mag. Nat Hist., ser. 2, 12, p. 124-128.

Graber, V.
1873. Über die Haut einiger Sternwürmer. S.B. Akad. wiss. Wien., 67, p. 61-78. 3 pl

Graf, L.
1875. Anatomie des Chaetoderma nitidulum Lovén. Zeit. wiss. Zool. 26, p. 166-192, pl. 11-13.
Gray, J. E.
1828. Spicil. Zool.
Greef, R.
1872. Über die borstentragenden Gephyreen. Sitzungsber. der Ges. ges. Naturw. zu Marburg, no. 6.
1874. Über die Organisation der Echuriden. ibid., no. 2.
1877. Über den Bau und die Entwicklung der Echiuren. Ibid., no. 4, p. 18.; also Archiv. f. Naturg., 43, p. 343-353.
1879. Über den Bau der Echiuren. Ibid. no. 4; Archiv. naturg., 46, p. 88-93.
1879. Die Echiuren (Gephyrea armata). Nova Act. Leop. Carol., 41, 172 p. 9 pl.
1880. Die Organisation des Echiurus Pallasii. Zeit. wiss. Zool., 34.
Grieg, J. M.
1907. Invertebres du fond. Gephyriens. In Duc d'Orleans, Croisiere oceanog. dans la mer du Grönland 1905, p. 519.
Griffin, B. B.
1896. The history of the Achromatic Structures in the Maturation and Fertilization of Thalassema. Trans. N.Y. Acad. Sc., 15, p. 163-176, 3 pl.
1899. Studies in the Maturation, Fertilization and Cleavage of Thalassema and Zirphaea. Jour. Morphol., 15, p. 583-634, pl. 31-34.
Griffith, J. E.
1834. Animal Kingdom, 12. Zooph.
Griffiths, A. B.
1892a. On the blood of the Invertebrata. Proc. Royal Soc. Edinb., 19, p. 150.
1892b. L'Hemerythrine, C. R. Acad. Sc. Paris, 115, p. 669.
Grube, E.
1837. Versuch einer Anatomie des Sipunculus nudus L., Muller's Arch. f. Anat. u. Physiol., p. 237-257.
1840. Aktinien, Echinodermen u. Wurmer des Adriatischen u. Mittelmeeres.
1869. Mitth. uber St. Vaast-la-Houge und seine Meeren, besonders seine Anneliden fauna. Abh. schles. Ges. 1868-1869, p. 91-128, pl. 2; and ibid. 1869-1872, p. 75-146, pl. 1 and 2.
Grube, E. and Oersted, A. S.
1859. Annulata Oerstediana. Vidensk. Meddel. naturhist. Foren. Kjobenhavn. for 1858.
Gruvel, A.
1899. Sur quelques stations Zool. de la Méditerranée. Mem. Soc. Bordeaux, v., p. 31-33.
Gruvel and Kunstler. See Kunstler.
Guerne, J. de.
1886. Sur les Géphyriens de la famille des Priapulides recueillis par la mission Cap Horn. C.R. acad. Sci., 103, p. 760-762.
Guérin-Méneville, F. E.
1829-43. Iconograpie du régne animal de G. Cuvier, 6.
Haeckel, E.
1878. Die Kometenforms der Seesterne u. der Generationswechsel der Echinodermen, Zeitsch. wiss. Zool., 30, suppl., p. 424.
Hacker, V.
1898. Die pelagischen Polychaeten und Achaeten-Larven der Plankton-Exped. Ergeb. Atlant. Ocean. ausgef. Plankton Exped. II., Kieland. Leipzig.
1905. Berichtigung. betreffend eine Gephyreen-Larve. Zool. Anz., 19, p. 334.
Haller, B.
1889. Beiträge z. Kenntniss der Textur des Central-Nervensystems hoheren Wurmer. Arb. z. Inst. Wien. 8, p. 1-138, 5 pl. (Gephyrea, p. 90-102).
1890. Abstract of preceding article, Jour. R. Mic. Soc., p. 177-179.
Hammarsten, O.
1913. Beiträge zur Entwicklung von Halicryptus spinulosus (v. Siebold). Zool. Anz., 41, p. 501-505, 3 f.
1915. Gephyreen von Madagascar ges. von W. Kaudern 1911-1912. Arkiv f. Zoologi, 9, Hft. 2, no. 10.
Hatschek, B.
1881. Über Entwicklungsgeschichte von Echiurus und die syst. Stellung der Echuridae (Gephyrei chaetiferi). Arb. aus der zool. Stat. in Triest, 1880, 3, H. 1, p. 45-79, pl. 4-6.
1883. Über Entwicklung von Sipunculus nudus. Op. cit., 5, H. 1, p. 61-140, 6, pl.
Heath, H.
1910. Pelagosphaera, a larval Gephyrean., Biol. Bull., 38, p. 281-284.
Herdman, W. A.
1897. Note on a new British Echiuroid Gephyrean, with remarks on the genera Thalassema and Hamingia. Quart. Journ. micr. Sci., n.s., 40. pt. 3, no. 159, p. 367-384, 2 pl.

Hérubel, Marcel A.
1902a. Sur certains éléments péritonéaux du phascolosome P. vulgare de Blainville, Bull. Soc. Zool. France, 27, p. 105.
1902b. Sur le cerveau du Phascolosome. C.R. Acad. Sci. Paris, 124, p. 1603.
1903a. Sur la distribution et les affinités réciproques des Sipunculides. Bull. Soc. Zool. France, 28, p. 99-111, 1 f.
1903b. Première contribution à la morphologie et physiologie comparées et à la biostatique des Sipunculides. Op. cit., 28, p. 111-125, 2 f.
1903c. Etudes histologiques et physiologiques sur les Géphyriens. C.R. Acad. Sci. Paris, 136, p. 971.
1904a. Sur les Sipunculides nouveaux rapportés de la mer Rouge par M. Ch. Gravier (Note préliminaire). Bull. Mus. Hist. Nat. Paris, p. 476-480, 4 f.
1904b. Liste des Sipunculides et des Echiurides rapportés par M. Ch. Gravier du Golfe de Tadjourah, Bull. Mus. Hist. Nat. Paris, p. 562.
1904c. Sur une nouvelle espèce du genre Sipunculus. C.R. 6me Congrès internat. de Zool. Berne, p. 690.
1904d. Sur les Priapulides des côtes occidentales de la Scandinavie. Bull. soc. zool. France, 29, p. 1 (100-109), 4 f.
1904e. Sur quelques points de la morphologie comparée des Priapulides. Bull. Soc. zool. France, 29, p. 126-129, 3 f.
1905a. Sur un nouveau Siponcle de la collection du Muséum (Sipunculus joubini sp. nov.). Bull. Mus. Hist. nat. Paris, p. 51-54, 3 f.
1905b. Sur les productions tégumentaires des Sipunculides. Bull. Soc. zool. France, 30, p. 90.
1906a. Sur les Sipunculides rapportés par la Mission Charcot. Bull. Mus. Hist. Nat. Paris, p. 127.
1906b. Sur une tumeur chez un Invertébré (Sipunculus nudus). C.R. Acad. Sci. Paris, 143, p. 979-981.
1907. Recherches sur les Sipunculides. Mem. soc. zool. France, 20, p. 107-418, f. 1-107.

Hilton, W. A.
1917. The Central Nervous System of a Sipunculid. Pomona College Jour. of Ent. and Zool., 9, p. 30-35, 6 f.

Horst, R.
1881a. Hamingia glacialis sp. n., eine borstenlose Echiure. Zool. Anz., 4, p. 448-450.
1881b. Die Gephyrea gesammelt wahrend der zwei ersten Fahrten des Willem Barents. I. Echiurida. Niederl. Arch. Zool., Suppl. 2, 12 p., 1 pl.
1882. Die Gephyrea. II, Priapulida and Sipunculida (from W. Barents' Exped.). Op. cit. Suppl. 1-3, p. 13-40.
1899. Aspidosiphon cylindricus, sp. n. Notes Leyden Mus., 20, p. 195.

Hutton, F. W.
1879. Phascolosoma annulata and Sipunculus lutulentus, sp. n. Tr. N.Z. Inst., 12, p. 278.

Hutton, W. K.
1903. On the Anatomy of a Gephyrean: Phascolosoma teres, nov. sp. Proc. Zool. Soc. London, 1, p. 202.

Ikeda, I.
1904. The Gephyrea of Japan. Jour. Coll. Sci. Japan, 4, p. 3-86, pl. 1-4.
1905. A Gephyrean collected by Prof. Dean at Manjuvodi, Southern Negros (Philippine Is.). Annot. Zool. Japan, 4, p. 169.
1907. On three new and remarkable Species of Echiuroids. Jour. Coll. Sc. Univ. Tokyo, 21 Art. 8, 64 pp., 4 pl.
1908a. Notes on a new Deep-sea Echiuroid, Protobonellia mitsukurii. Annot. zool. Japan., 6 p. 259-265, 4 f.
1908b. A New Echiuroid (Hamingia ijimai) from the Sagami Bay. Annot. zool. Japan, 7, p. 61-68, 1 pl.
1910. Notes on a Deep-sea Echiuroid, Acanthohamingia shiplei (n.g. and n. sp.), with Remarks on the Species Hamingia ijimai. Quart. Jour. Micr. Sc., n.s., 56, p. 135-147, 1 pl.

Jameson, H. L.
1899a. Thalassema papillosum (Delle Chiaji), a forgotten Echiuroid Gephyrean. Mitth. zool. Stat. Neapel. 13, p. 433-439, 1 pl.
1899b. Contributions to the Anatomy and Histology of Thalassema neptuni Gaertner. Zool. Jahrb. Abth. Anat., 12, p. 535-566, 3 pl., 1 f.

Johnston, G.
1833. Illustrations in British Zool. Ann. Nat. Hist., 6, p. 232-235.

Jourdain, S.
1865. Recherches sur l'anatomie des Siponcles. C.R. Ac. Sc., 40, no. 20, p. 1042.
1867. Sur quelques points de l'anatomie des Siponcles. C.R., Apr. 29, p. 871-873; and Ann. Nat. Hist., 1867, 19, p. 442-443.

Jourdan, Ét.
1891a. Les corpuscles sensitifs et les glandes cutanées des Gephyriens inermes. Ann. Sc. nat. (7), 12, p. 1.
1891b. Les corps jaunes des Echinodermes et des Gephyriens. C.R. assoc. franc. Avanc. Sc. Marseille (2), pt. 1, p. 249, pt. 2, p. 537.
1892. De la valeur du mot endothelium en anatomie à propos des cellules à cils vibratils de la cavité générale des Sipunculiens. C.R. Soc. Biol. Paris, 4, p. 27.

Keferstein, W., and Ehlers, E.
1860. Auszug aus den Unterschungen uber die Anatomie des Sipunculus. Nachr. K. Ges. Wiss. Gottingen.

Keferstein, W.
1862a. Beitrage zur Kenntniss der Gattung Phascolosoma. Zeit. wiss. Zool., 12, p. 35-51, pl. 3, 4.
1862b. Unters. uber niedr. Seethiers-Kenntn. Zeits. wiss. Zool., 12.
1865. Beiträge zur anatomischen und systematischen Kenntniss der Sipunculoiden. Zeit. wiss. Zool., 15, p. 404-445, pl. 31-33; and Nachr. K. Ges. Wiss. Gottingen, p. 189-200.
1866. Untersuchungen uber einige amerikanischen Sipunculiden. Nachr. K. Ges. Wiss. Gottingen, p. 215-228.
1867. Same Article as preceding. Zeit. wiss. Zool., 17, p. 44-55, pl. 6.

Kesteven, H. L.
1903. A new species of Dendrostoma. Rec. Austral. Mus., 5, p. 105.

Kindle, E. M.
1917. Notes on The Bottom Environment of the Marine Invertebrates of Western Nova Scotia. Ottawa Naturalist, 30, No. 12, p. 150.

Kindle, E. M., and Whittaker, E. J.
1918. Bathymetric Check-List. Mar. Invert. E. Canada. Contrib. to Can. Mar. Biol., Sess. Paper 38d. Ottawa, 1918, p. 240.

Knipovitcha, H.
1891. Otchet ob ekokursii na Solovetzki biologischeskuyu (antziyu lvetom 1890 ghoda (Report on a Biol. excursion to Solovetzki, Priapulus, p. 24 and 40). Trudui St. Petersburg Est., 1891, 22, 1.

Koren, J., and Danielssen, D. C.
1875. Bidrag til de norske Gephyreers Naturhistorie. N. Mag. Naturv., 21, p. 28.
1877. Fauna littoralis Norvegiae; Contribution to the natural history of the Norwegian Gephyrea. Christiania.

Kowalevsky, A.
1870. Planariform male of Bonellia viridis. (In Russian; for transl. see under Catta. Travaux de la Soc. Sci. Kiev, 1, p. 101-109, pl. 5.
1872. Zur Anatomie und Entwicklung von Thalassema. Zeit. wiss. Zool., 22, p. 284.
1876. Du mâle planariforme de la Bonéllie. See under Catta.
1889. Ein Beitrag zur Kenntniss der Excretions Organe. Biol. Centrabl., 9, p. 43-47, 65-76, 127-128.
1901. Sur le genre Chaetoderma. Arch. Zool. expér. (3), 9, p. 261-283, 3 pl.

Krohn, A.
1839. Uber das Nervensystem des Sipunculus nudus. Müller's Archiv. Anat. u. Phys., p. 348-352.

Kunstler, J.
1908a. Que sont les Urnes des Siponcles? C.R. Acad. Sc. Paris, 146, p. 196-199, 4 f.
1908b. Note additionnelle sur les "Urnes" des Siponcles. C.R. Soc. Biol. Paris, 64, p. 303-304, 1 f.

Kunstler, J., and Gruvel, A.
1897a. Recherches sur l'évolution des Urnes. C.R. Acad. Sc. Paris, 124, no. 6, p. 309-312. (Also Abstr. in Jour. R. micr. Soc. London, pt. 2, p. 126; and reviewed in Amer. Nat., 31, p. 541-543.
1897b. Sur le développement d'éléments particuliers de la cavité générale du Siponcle, Proc.-Verb. Soc. Sci. phys. nat. Bordeaux. 1896-1897, p. 57-60.
1898. Nouvelles observations sur quelques stades de l'évolution des Urnes. C.R. Acad. Sc. paris, 126, p. 970-972.
1899. Recherches sur les "coupes ciliées" der Phymosoma granulatum. Proc. Verb. Soc. Sc. phys. nat. Bordeaux, 1898-1899, p. 29-32.

Lacaze Duthiers, H. de.
1858. Recherches sur la Bonellie (Bonellia viridis). Ann. Sc. Nat. Zool., (4), 10, p. 50, pl. 1-4.

Ladreyt, F.
1903. Sur le rôle de certains éléments figurés chez Sipunculus nudus L. C.R. Acad. Sc. Paris, 137, p. 865-867.
1904a. Sur le pigment de Sipunculus nudus L. C.R. Soc. Biol. Paris, 56, p. 850-852.
1904b. Sur les urnes de Sipunculus. C.R. Acad. Sc. Paris, 139, p. 370-371.

Ladreyt, F. *Concluded*
1905. Sur les tubes de Poli de Sipunculus nudus L. Arch. Zool. expér. (4), 3, p. CCXV-CCXXII, 4 f.
1906. Sur certains phénomènes de dégénérescence des globules sanguins dans le liquide coelomique de Sipunculus nudus. C. R. Ass. franc. Av. Sc. Sess. 34, p. 601-602.
Lampert, K.
1883. Über einige neue Thalassemen. Zeit. wiss. Zool., 39, p. 334-342.
Lamarck, J. P. B. A. de M.
1816. Hist. nat. du Anim. s. Verteb., 3, p. 65.
Lanchester, W. F.
1905a. On a collection of Sipunculids made at Singapore and Malacca. Proc. zool. Soc. London, 1, p. 26-28.
1905b. On the Sipunculids and Echurids collected during the "Skeat" Expedition to the Malay Penn., Op. cit., p. 35-41, 1 pl.
1905c. The marine Fauna of Zanzibar and Brit. E. Africa from Coll. by C. Crossland in 1901 and 1902. Gephyrea. Proc. Zool. Soc. London, p. 28-35.
1908. Sipunculoidea. Nat. Antarctic Exped., 1901-1904. Nat. Hist., 4, p. 1-6.
Lankester, E. R.
1873. Zool. observ. made at Naples in the winter of 1871-72. Ann. Mag. Nat. Hist., 11, p. 89.
1881. On Thalassema neptuni Gaertner. Zool. Anz., 4, p. 350-356.
1883. On specimens of the Gephyrean Hamingia arctica Kor. and Dan. from the Hardanger Fjord. Ann. Nat. Hist. (5), 11, p. 37-43.
1885. Golfingia MacIntoshi n. sp. Trans. Linn. Soc. London (2), 1, p. 169.
1908. The ciliated "Urns" of the Sipunculids. Nature, 78, p. 318.
Lesson, R. P.
1858. Cent. Zool. 91, pl. 31, f. 2.
Leuckart, F. G.
1828. Brev. Animal. quorund. descriptiones.
Leuckart, F. G., and Rüppell, W. P. E.
1828. Atlas der Reise im Nordl. Afrika.
Levinsen, G. M. R.
1884. Systematisk geografisk Öfversight over den nordske Annulata, Gephyrea, Chaetognatha og Balanoglossus. Vids. Medd. 1883-II, p. 92-350, pl. 1-3.
1887. Kara Havets Leforme (Annulata). Dijmna-togtets Zoolog.-bot. Udbytte, p. 302.
Leydig, F.
1864. Vom Bau des thier. Korpers. Tubingen.
Lefevre, G.
1905. Artificial Parthenogenesis in Thalassema mellita. Science, n.s., 21, p. 379.
1906. Further Observations on Artificial Parthenogenesis. Science, n.s. 23, p. 522-524.
1907. Artificial Parthenogenesis in Thalassema mellita. Journ. exper. Zool., 4, p. 91-150, pl. 1-6.
Linné, K. v.
1754. Chinensia Lagerstroemiana, in Amoen. acad., 4, p. 254, etc.
1758. Systema Nat., ed. 10.
1766. Systema Nat., ed. 12.
Lovén, S.
1845. Öfver K. vet. Akad. Forh., 1844, 1, p. 116, pl. 2.
Mack, H. von
1902. Das Centralnervensystem von Sipunculus nudus L. (Bauchstrang). Mit besond. Berucksichtigung des Stutzgewebes. Eine histol. Untersuchung. Arb. zool. Inst. Wien, 13, p. 237-332, 5 pl., 17 f.
McCoy, F.
1845. Contrib. to Fauna of Ireland. Ann. Mag. Nat. Hist., 15, p. 272.
Macdonald, J. D.
1871. Structure of Sipunculus. Ann. Mag. Nat. Hist. (4), 8, p. 221-223.
McIntosh, W. C.
1866. Proc. Royal Soc. Edinb., 5, p. 613.
Magnus, R.
1903. Pharmakologische Untersuchungen an Sipunculus nudus. Arch. exper. Path. Bd., 50, p. 86-122.
Maissoneuve, P.
1889. La faune marine des côtes de Belle-Ile. Bibliog. Scient. de l'Ouest.
Maitland, R. T.
1851. Fauna Belgii Septent., 1.
1898. Prodrome de la faune des Pays Bas et de la Belgique flamande de 1679 a 1898. Leiden.
Marelli, C. A.
1912. Notas sobre los Priapulidos y la teoria de la bipolaridad de las especies. Buenos Aires Bol. Soc. Phys., 1, p. 139-143.

Marenzeller, E. von
1888. Bericht über die Fortschritte auf dem Gebiete der Systematik, Biologie u. Geogr. Verbr. der Platyhel., Chaetogn., Gephyriens, Annelida, Enteropn. u. Rotatorien in 1885-87. Zool. Jahrb., 3, p. 1015.

Marion, A. F.
1883. Esquisse d'une topographie zool. du golfe de Marseille. Ann. Mus. Hist. Nat. Marseille, 1, p. 73.
1883b. Considérations sur les faunes profondes de la Méditerranée. Ann. Mus. Hist. Nat. Marseille, 1, p. 73.

Martens, G. v.
1824. Fauna Veneta, in Reise nach Venedig, Th. 2.

Martin.
1786. Observ. on Marine Vermes, etc.

Metalnikoff, S. J.
1899. Das Blut und die Excretionsorgane von Sipunculus nudus. Mitth. zool. Stat. Neapel, 13, p. 440-447.
1900. Sipunculus nudus. Zeitschr. wiss. Zool. 68, p. 261-322, 6 pl.

Mettenheimer, C.
1854. Über den Bau und das Leben einiger wirbelloser Thiere aus den Dänischen Meeren. Abh. Senckenb. Ges. Frankfurt, 1, p. 6, pl. 1, f. 19.

Michaelsen, W.
1889. Die Gephyreen von Süd-Georgien nach der Ausbeute der deutschen Station von 1882-1883. Jahrb. wiss. Anst. Hamburg, 6, p. 17.

Mingazzini, P.
1905. Un Gefirio pelagico: Pelagosphaera Moysii. Atti Accad. Lincei, 14, p. 713.

Moebius, K.
1875. Jahresber. Kommission. wiss. Untersuch. d. deutschen Meere im Kiel. f. 1872, 1873. V, Vermes. Berlin, 1875.

Moltschanoff, L. A.
1909a. Nephridies de Phascolion spitzbergense Th. Bull. Acad. Sc. St. Petersbourg, (6), 2, p. 69-74.
1909b. Beitrag zur Morphologie und Physiologie der Priapuliden. Bull. Acad. Sc. St. Petersbourg, (6), 2, p. 957-967, 9 f.

Montagu, G.
1815. Descriptions of several new or rare animals principally marine, discovered on the south of Devonshire. Trans. Linn. Soc. London, 11, pt. 1, p. 24, pl. 5, f. 2.

Muller, J.
1854. Über verschiedene Formen von Seethieren. Archiv. f. Anat. Phys. u. wiss. Med., p. 69-98.

Muller, O.F.
1789. Zoologica danica, 3.

Muller, Max.
1852. Observationes anatomicae de vermibus quibusdam maritimis. Berlin, p. 14-22, pl. 3, f. 1-12.

Murdoch, J.
1885. Marine Invertebrates, Gephyrea. Rep. Internat. Polar Expe[illegible]. Point Barrow, Alaska, p. 156.

Nickerson, M. L.
1899a. Intracellular canals in the skin of Phascolosoma. Zool. Jahrb. Abth. Syst., 13, p. 196.
1899b. Intracellular differentiations in gland cells of Phascolosoma Gouldii. Science, n.s., 9, p. 365.
1901. Sensory and glandular epidermal organs in Phascolosoma gouldii. Journ. Morphol., 1901, 17, p. 381.

Nordgaard, O.
1905. Hydrographical and Biological Investigations in Norwegian Fjords. Publ. by Bergen Museum, p. 157-164, 235, 241-245.

Norman, A. M.
1861. On an Echinoderm new to Science from Ireland. Ann. Mag. Nat. Hist. (3), 7, p. 112-114, pl. 9, f. 1-4.
1894. A month on the Trondjhemfjord. Ann. Mag. Nat. Hist., 13, p. 150.

Oersted, A. S.
1844. De regionibus marinis. Hafniae.
1844-45. Fortegnelse over Dyr samlede i Christianiafjord. Kroyer's Nat. Tidskr., p. 400-427.

Olafsen, E., and Povelsen, B.
1772. Reyse igiennem Island.

Ostroumoff, A. A.
1909. Sur les Géphyres du nord de la Mer du Japon. Ann. Mus. Zool. St. Petersb., 14, p. 319-324.

Packard, A
1867. Observations on the Glacial Phenomena of Labrador and Maine, with a view of th recent invertebrate fauna of Labrador, Mem of the Boston Society of Nat. Hist 1 pt. 2, p. 291, etc
Pallas, P S
1766 Miscellanea Zoologica, 146, pl. 11, f 1-6
1774 Spicilegia Zoologica, 1, fasc. 10, pl 10, f. 1-5.
Paul, G
1909. Über Petalostoma minuta Keferstein und verwandte Arten, nebst em Bemerkunge zur Anatomie von Onchnesoma steenstrupii Zool. Jahrb., Abth Anat., 29 , 1-50, pl. 1, 2
Pennant, T
1777 British Zoology, 4, p. 31, pl. 20, f. 10
Perrier, Ed
1897. Traité de Zoologie
Peters, W
1850. Über die Fortpflanzungsorgane des Sipunculus. Archiv. f. Anat. u. Physiol, p 592 593
Phillips, J
1854. Notes ona Living Priapulus caudatus. Rep. Br. Assoc. for 1853, Notes and Abstract p. 70-71.
Pourtalès, L. F. de
1851. On the Gephyrea of the Atlantic coast of the United States Proc Am. Ass Ad. Sc., 5th meeting, pp. 39-42
Pruvot, G
1894. Essai sur la topogr. et la const. des fonds sous-marins de la région de Banyuls. Archiv Zool. expér. et gén.; (3), 2, p. 599
1895. Coup. d'œil sur la distrib. gén. des Invertébrés de la région de Banyuls. Op. cit (3), 3, p. 629
1896. Conditions gén. de la vie dans les mers et principes de la distrib. des organismes marins Année biolog., 2, p. 559
1897. Essai sur les fonds et la faune de la Manche occidentale (côtes de Bretagne) comparés à ceux du golfe du Lion. Archiv. Zool. expér. et gén., (3), 5, p. 511.
Quatrefages, A. de
1847a. Mémoire sur l'Echiure de Gaertner. Voyage sur les côtes de la Sicile, etc., p. 221, pl. 25, 26; Also in Ann. Sc. Nat., ser. 3, 7, p. 307-343, pl. 6, f. 1-11.
1847b. Etudes sur les types inférieurs de l'embranchement des Annelés; Mémoire sur l'Echiure de Pallas (Echiurus Pallasii Nob.) C. R. Acad. Sc. Paris, 24
1865. Notes sur la classification des Annélides. C. R. Acad. Sc., 40, no. 13, p. 586-600; Ann Sc. Nat., 3, p. 253-296.
1865b. Histoire naturelle des Annelés marins et d'eau douce
Rafinesque, Schmalz, C. S
1814. Précis des découvertes
Ranzani, C
1817. Opusculi scientifici, Fasc. 2, p. 112, pl. 4; et Isis, 11 and 12, 183
Rathke, H
1843. Beitrage zur fauna Norwegens. Nova Act. Phys. med. Acad. C. L. C. Nat. Cur., 20 p. 2-264, pl. 1-12.
Rathke, J.
1806. In Müller, Zoologica Danica, 4.
Reinhardt, J. Th.
1851. Naturhist. Bidrag til en Beskrevelse af Groenlande
Retzius, G
1904. Zur Kenntniss der Spermien der Evertebraten. Biol. Untersuch, 11, p. 1-32, pl. 1-13
Lietsch, M.
1884. Sur la structure histologique de la trompe de la Bonellie. Bull. Soc. Philom., 7 , 8, p. 125-132.
1886. Etude sur les Gephyriens armés. Recueil Zool. suisse, 3, p. 314-515, pl. 17-22 (These d. Doct., Paris, 1886).
Risso, A.
1826. Hist. nat. Europ. mérid., 5.
Ritchie, J.
1912. The common spoon-worm, Echiurus Pallasii, on the coast of Aberdeenshire. Scottish Naturalist, p. 60
Rolando, L.
1821. Bonellia viridis. Mem. della reale Accad. delle scienze di Torino. 26, p. 539-551, pl. 14, f. 1-3, pl. 15, f. 5-7.
1823. Neues Thier zur Klasse der Echinodermen. (Transl. of preceding article). Isis von Oken, 1, p. 398, pl. 5, f. 1-5.
Rondelet, G.
1558. L'hist. entière des poissons. Fr. transl. by Joubert.

Rosa, D.
1898. Sur les prétendus rapports génét. entre les lymphocytes et les chlorogogènes. Archiv. ital. de Biol., 30, p. 35.
Roule, L
1896a. Sur le Développement des Feuillets Blastodermiques chez les Géphyriens tubicoles. C.R. Acad. Sc. Paris, 110, p. 1147-1149.
1896b. Géphyriens. Résultats scientifiques de la campagne du "Caudan" dans le golfe de Gascogne (août-septembre 1895). Trav. Univers. Lyon. Fasc. 3, p. 473.
1898a. Note préliminaire sur les espèces de Géphyriens recueillies dans les explorations sous-marines du "Travailleur" et du "Talisman". Bull. Hist. Nat. Paris, p. 384.
1898b. Sur les Géphyriens des grands fonds de la Mer, rec. par le "Travailleur" et le "Talisman", C.R. Acad. Sc. Paris, 127, p. 197-199.
1907. Annélides et Géphyriens. Expéditions scientifiques du "Travailleur" et "du Talisman," S. p. 1-102, pl. 1-10, Paris.
Salensky, W. See Selensky, W.
Sars, M.
1851. Nyt. Mag. f. Naturwid., 6, p. 197.
Scharff, R.
1895. The Skin and Nervous System of Priapulus and Halicryptus. Q. J. Micr. Sc., 25, p. 193-213, pl. 14.
Schaunsland, H.
1886. Die Excret. u. Gechlechtsorgane d. Priapuliden. Zool. Anz., 9.
1887. Zur Anatomie der Priapuliden. Zool. Aerz. 10, p. 171-173.
Schenck, S. L.
1875. Der grune Farbstoff von Bonellia viridis. S. B. Akad. Wien, 5, p.
Schmidt, O.
1854. Über Sipunculoiden. Zeits. f. d. ges. Naturwiss., 3, p. 5, pl. 2, f. 5.
Schmitt, J.
1904. Monogr. de l'isle d'Anticosti. Thèse Faculté Sc. de Paris, Sorbonne.
Schneider, A.
1864. Über die Muskeln der Würmer und ihre Bedeutung fur das System. Archiv f. Anat. u. Physiol. p. 592, 593.
Schneider, R.
1912. Die neuester Beobachtungen über naturlicher Eisenresorption in thierischen Zellkernen und einige characteristische Falle der Eisen verwerthung im Körper von Gephyreen. Int. Stat. Neapel, 12, p. 207-216, pl. 8.
Schweigger, A. F.
1820. Handbuch der Naturg. ungegl. Thiere.
Seitz, P.
1907. Der Bau von Echiurus chilensis. (Urechis n.g., chilensis.) Zool. jahrb. Abt. Anat., 24, p. 323-356, 3 pl.
Selenka, E.
1875. Eifurchung u. Larvenbildung von Phascolosoma elongatum Kef., Zeit. wiss. Zool. 25, p.
1878. Das Mannchen der Bonellia. Zool. Anz., 1, p. 120-121.
1885. Report of the Gephyrea collected during the voyage of H.M.S. Challenger. Report of sc. results of the explor. voyage of H.M.S. "Challenger", 12.
1888. On the Gephyreans of the Mergui Archipelago, collected for the trustees of the Indian Mus., Calcutta. Journ. Linn. Soc. London, 21, p. 220.
1897. Die Sipunculiden-Gattung Phymosoma. Zool. Anz., 20, p. 460.
Selenka, E., De Man, J. G., and Bulow, C.
1883. Die Sipunculiden. Reisen im Archipel. der Philippinen von Dr. C. Semper, 2te Theil 4. Abt. 1.
Selensky, W.
1876. Über die Metamorphose des Echiurus. Morphol. Jahrb., 2, p. 319-327, pl. 22.
1905a. Über den Bau des Prototrochs der Echiurus-Larven. C.R. 6me Congr. internat. Zool. Berne, p. 338-342.
1905b. Über die Bildung des Mesoblastes bei den Echiuruslarven. Op. cit., p. 377-381.
1905c. Morphogenetische Studien an Würmern. I. uber den Bau der Echiuruslarven. (Trav. Lab. zool. et Stat. biol. Sébastopol, Acad. Sc. St. Petersb. no. 6.) Mem. Acad. Sc. St. Petersb. C.l. phys.-math. (8), 16, no. 11, 102 pp., 10 pl.
1907a. Über die sogenannten Urnen der Sipunculiden. (in Russ.) Trav. Soc. Nat. St. Petersb., 38, pt. 1, C.R., 235-237, 3 f.
1907b. Über den Bau und die Entwicklung der sogenannten Urnen der Sipunculiden. Zool. Anz., 32, p. 329-336, 4 f.
1908a. Untersuchungen über die sogenannten Urnen der Sipunculiden. Zeits. Wiss. Zool., 90, p. 536-595, 4 pl., 6 f.
1908b. Über die Metamorphose des Echiurus. Bull. Acad. Sc. St. Petersb. (6), 2, p. 307-328, 363-380, 27 f.
Semper, K.
1864. Reisebericht. Zeits. wiss. Zool. 1864, 14, p. 416-426, pl. 41.

Senna, A.
1906. Raccolte planktoniche fatte della R. nave Liguria nel viaggio di circumnavigazione, 1903-1905, I. 2 Sulla struttura di alcune larvae (Pelagosphaera) di Sipunculidi Firenze. Pubblic. Ist. Sup., p. 50-78, 2 pl.
1908. Su una larva di Echiurus (E. abyssalis) del plancton di Messina. Monit. zool. ital., 19, p. 38-44, 2 f.

Sharp, E.
1908. The Echinoderms of Guernsey. Rep. Trans. Guernsey Soc. Nat. Sc., 5, p. 329-332 (Incl. Sipunculus).

Shipley, A. E.
1890a. On a new species of Phymosoma. Proc. Cambr. Phil. Soc., 7, p. 77-78.
1890b. On Phymosoma varians. Q. J. Micr. Sc., 31, p. 1.
1891. On a new Species of Phymosoma, with a synopsis of the genus and some account of its geogr. distrib. Q. J. Micr. Sc., 32, p. 111.
1892. On Onchnesoma steenstruppi. Q. J. Micr. Sc., 34, p. 233-250.
1893. Notes on the genus Sipunculus. Proc. Zool. Soc. London, p. 326-332, pl. 25-27.
1896. Gephyrea and Phoronis. Camb. Nat. Hist., 2, p. 409-462, 211.
1898a. A Report on the Sipunculoidea collected by Dr. Willey at the Loyalty Is. and in New Britain. Zool. Results, A. Willey, Pt. 2, p. 151-160, 1 pl.
1898b. A Report on the Gephyrean worms coll. by Mr. Stanley Gardiner at Rotuma and Funafuti. Proc. Zool. Soc. London, Pt. 3, p. 468.
1899a. Notes on a Collection of Gephyrean worms found at Christmas Id. by Mr. C. W. Andrews, Proc. Zool. Soc. London, pt. 1, p. 55.
1899b. On a Collection of Echiuroids from the Loyalty Id., etc. Willey's Zool. Results, Pt. 3.
1902a. Report on the Gephyrea coll. by Prof. Herdmann at Ceylon in 1902. Herdman Rep. Pearl Oyster Fishery, Pt. 1, p. 169.
1902b. Echiuroidea. Fauna and Geogr. Maldive Laccadive Archip. 1, p. 127-130, 1 pl.
1902c. Sipunculoidea, with an account of a new Genus Lithacrosiphon. Op. cit., 1, p. 131-140, 1 pl.
1902d. Gephyrea. Rep. Coll. nat. hist. Southern Cross, p. 281-285.

Skorikow, A. C.
1901a. Sur la distribution géographique de quelques Priapulidae, Russ. art. in Ann. Mus. Zool., Acad. Sc. St. Petersb. 6, p. XXI-XXIII.
1901b. Über die Gattung Hamingia Kor. et Dan. (Bonellidae). Zool. Anz., 24, p. 158-160, 1 f.
1902a. Über die geogr. Verbreitung einiger Priapuliden (Gephyrea). (Trans. of first article above). Zool. Anz., 25, p. 155-157.
1902b. Gephyrea aus der zool. Ausbeute des Eisbrechers "Ermak" im Sommer 1901. Ann. Mus. zool. Acad. imp. Sc. St. Petersb. 7, p. 274.
1905. Eine neue Echiurus-Species aus dem Mittelmeer. Zool. Anz., 29, p. 217-221.
1909. Subfam. Echiurini nov. (Gephyrea armata). (In Russ.) Ann. Mus. zool. Acad. Sc. St. Petersb., 14, p. 77-102, 1 pl.
1910. Die Polychaeten und Gephyreen der Ostee. Ann. mus. zool. St. Petersb., 15, p. 207-236, 2 maps and 6 f.

Slater, G. P.
1882. Notiz uber die Segmental-Organe u. Geschlechtsdrusen einiger Tropischen Sipunculiden. Tijdschr. Niederl. Dierk. 6, p. 1-20, pl. 1.
1883. Über einige Sternwürmer des indischen Archipels. Zool. Anz., 6, p. 222-228.
1883-84. Beitrage zur Kenntniss de Gephyreen aus dem Malayschen Archipel., 3 Mitt. Nat. Tijdscher. Nederl. Indie. Batavia. 4, p. 28.
1886. Beiträge zur Kenntniss der Gephyreen aus dem Malayschen Archipel., 4 Mitt. Op. cit., I, 3, p. 472.
1890. Die Evertebraten aus der Sammlung des königlichen naturwiss. Vereins in Niederl. Indien in Batavia. Zugleich eine Skizze der Fauna des Java-Meeres, mit Beschreibung der neuen Arten, Op. cit., 50, p. 102.
1891. Same title, III, Op. cit., 50, p. 112.
1897. Gephyreen von Süd-Afrika, nebst Bemerkungen über Sipunculus indicus. Zool. Jahrb. Syst., 11, p. 442-450.
1900. Géphyriens (Sipunculides et Echiurides) provenant des campagnes de l'Hirondelle" et de la "Princesse Alice." Résult. des campagnes scientif. Albert Ier., fasc. 15. Monaco.
1902. Die Sipunculiden und Echiuriden der "Siboga"-Exped. Leiden.
1912. Géphyriens des campagnes des Yacht "Princesse-Alice" (1898-1910). Résultats des campagnes scientif. du Prince de Monaco. Fasc. 36, p. 1-36.

Solander, D.
1786. Nat. Hist. of Zoophytes coll. by J. Ellis, 4, p. 196, pl. 8, f. 6.

Southern, R.
1908. British and Irish marine Worms. Irish Nat., 17, p. 83-86.
1913a. Gephyrea of the Coasts of Ireland. Fisheries Ireland Sci. Investig. 3, p. 1-46, 7 pls.
1913b. Oligochaeta, Gephyrea and Hirudinea. Proc. R. Irish Acad., 31, pts. 48-50, p. 1-14, 1-6, and 1-6, 2 pl.

Spengel, J. W.
1879a. Über die Organization des Echiurus Pallasii. Zool. Anz., 2, p. 542-547.
1879b. Beiträge zur Kenntniss der Gephyreen I. Die Eibildung, die Entwicklung und das Männchen der Bonellia. Mitt. a.d. zool. Stat. z. Neapel., 1, p. 357-419, pl. 8-12.
1880. Same title, II. Die Organization des Echiurus Pallasii. Zeits. wiss. Zool., 34, p. 458-538, pl. 23-26.
1898. Der Name Physcosoma. Zool. Anz., 21, p. 50.
1907. Eine verkannte Sipunculus-Larve. Zool. Anz., 31, p. 97-99.
1912a. Beiträge zur Kenntniss der Gephyreen, III. Zum Bau des Kopflappen der armaten Gephyreen. Zeits, wiss, Zool., 101, p. 342-385, 21 pl.
1912b. Beiträge zur Kenntniss der Gephyreen, IV. Revision der Gattung Echiurus. Jahrb. Abt. Syst., 33, p. 173-212, 1 pl.
1912c. Einige Organisationsverhältnisse von Sipunculusarten und die Bedeutung fur die Systematik dieser Tiere. Verh. zool.-Ges., Leipzig, 22, p. 261-272.
1912d. Über den Hautmuskelschlauch gewisser Thalassema-Arten und seine Bedeutung für die Systematik dieser Tiere., Op. cit., 22, p. 309-317.
1913. Zur Organisation und Systematik der Gattung Sipunculus. Verh. deusch. zool. Ges., Leipzig, 23, p. 68-78.

Spratt, T.
1848. On the Influence of Temperature upon the distrib. of the Fauna of the Aegean Sea. In London, Edinburgh and Dublin Philos. Mag., 33, p. 171, etc.

Stewart, F. H.
1900. Note on a Variation in the Number of Genital Pouches in Thalassema neptuni Gaertner Ann. Mag. nat. Hist., (7), 6, p. 218-219
1909a. Investigator sicarius, a Gephyrean Worm hither' undescribed, the type of a new order. Mem. Ind. Mus. Calcutta, 1, p. 283-
1909b. The generic name "Investigator"; a correction. Rec. Ind. Mus., 3, p. 183.

Stimpson, W.
1853. M: rine Invert. of Grand Mana Smiths. Contrib. to Knowledge, 6, 1854.
1855. Descrip. of some New Marine I . Proc. Acad. Sci. Phil. 7, p. 385-394 (Gephyrea, p. 390.)
1864. Descriptions of new Species of Marine Invertebrates from Puget Sound. Proc. Acad. sci. Phil., no. 3, p. 159.

Stossich, M.
1882. Prospetto della fauna del mare Adriatico. Parte 4. Boll. Soc. Adriat. Soc. Nat. Trieste, 7, p. 168.

Studer, Th.
1879. Thalassema verrucosa sp. nov. Arch. f. Naturg., 45, p. 124.

Teuscher, R.
1874. Notiz uber Sipunculus und Phascolosoma. Jen. Zeit. Nat., 8, p. 488.

Théel, H.
1875. Etudes sur les Gephyriens inermes des Mers de la Scandinavie, du Spitzberg et du Groenland. Bih. till k. Svensk. vet. Akad. Handl., 39, Stockholm, III, no. 6, p. 1.
1876. Recherches sur le Phascolion Strombi. Op. cit., III, no. 3, p. 1 .
1905. Northern and arctic Invertebrates in the Collection of the Swedish State Mus. (Rikmus.) I. Sipunculids. K. Svensk. Vet.-Akad. Handl., 39, no. 1, 100p., 15 pl.
1911. Priapulids and Sipunculids dredged by the Swedish Antarctic Exped., 1901-1903, and the phenomena of bipolarity. Op. cit., 47, no. 1, p. 1-36, pl. 1-4.

Thiele, J.
1900. Proneomenia thulensis n. sp. Fauna arctica. 1, p. 111-116, 1 pl.

Torrey, J. C.
1902a. The early development of the Mesoblast in Thalassema. Anat. Anz., 21, p. 247 256, 3 f.
1902b. The Cell-Lineage of the Mesoblast-Bands and Mesenchyme in Thalassema. Science, n.s., 15, p. 576-577.
1903. The early embryology of Thalassema mellita (Conn.). Ann. N.Y. Acad. Sc., 14, p. 165-246, 10 f.

Turton, W.
1807. British Fauna.

Uexküll, J. von Y.
1896. Zur Muskel und Nervenphysiologie von Sipunculus nudus. Zeit. Biol. (2) 15, p. 1

Valenciennes, A.
1854. In C.R. Acad. Sci. Paris, 39, p. 640-643.

Vejdovsky, F.
1878. Über die Eibildung und die Männchen von Bonellia viridis. Zeit. wiss. Zool., 30, p. 487-500. pl.30, Review of same, Rev. Int., 1, p. 722-727, and Arch. Z. exper. 6, p. 46.

Verrill, A. E.
1873a. Results of recent dredging Expeditions on the Coast of New England, Amer. Journ. Sc. and Arts, (3), 5, p. 99.

Verrill, A. E.—*Concluded.*

1873b. Report upon the Invertebrate Animals of Vineyard Sound and adjacent waters. Rep. U.S. Comm. Fish and Fisheries, pt. 1, 1871-72, p. 295-778, pl. 1-38, Washington.

1874. Explorations of Casco Bay by the U.S.F.C. in 1873. Proc. Am. Assoc. Adv. Sc., p. 340-395, pl. 1-6. Salem.

1879. Annelids, in L. Kumlien Contrib. to Nat. Hist. of Arctic America, Howgate Polar Exped. Bull. U. S. N. M. 15, p. 141-143.

1885. Results of the Explorations made by the Steamer *Albatross*, off the northern coast of the U.S. in 1883. Rept. U.S. Comm. Fish and Fisheries, pt. 2, p. 503-727, pl. 1-44, Washington.

1904a. Additions to the Turbellaria, Nematoda and Annelida of the Bermudas with revision of some N.E. genera and species. Tr. Conn. Acad., 10, ser. 2, p. 595-671, pl. 70.

1904b. Additions to the fauna of Bermudas from the Yale exped. of 1901, with notes on other species. Op. cit., 11, pt. 1, p. 15-62, pl. 1-11.

Vignal, W.

1887. Sur les éléments du liquide de la cavité générale des Siponcles. CR. Ass. Fr. Sci. 1886, pt. 2, p. 592-593.

Vogt, K., and Young, E.

1888. Anatomie comparée I, Vermes, p. 200-513.

Walcott, C. D.

1911. Middle Cambrian Annelids, Smith. Inst. Misc. Coll., 57, no. 5, p. 109-144, pl. 18-23.

Ward, H. B.

1891. On some points in the Anatomy and Histology of Sipunculus nudus L. Bull. Mus. Comp. Zool., 21, no. 3.

Wharton, L. D.

1913. A Description of some Philippine Thalassemae with a Revision of the Genus. Philippine J. Sc. 8, p. 243-270, 2 pl. 3 f.

Whiteaves, J. F.

1901. Catalogue of Marine Invertebrata of Eastern Canada, No. 772. Geol. Survey of Can., Ottawa, 1901.

Whitelegge, T.

1898. The Hydrozoa, Scyphozoa, Actinozoa and Vermes of Funafuti. Mem. Austr. Mus., 3, pt. 7, Vermes p. 392-394.

Willemoes-Suhm.

1876. Briefe an C. Th. E. von Siebold. Zeits. wiss. Zool., 27, p. CII.

Wilson, E. B.

1899a. The structure of Protoplasm. Biol. Lect. Wood's Hole for 1898, p. 1-20.

1899b. On protoplasmic structure in the eggs of Echinoderms and some other animals. Journ. Morphol. 15, Suppl. O, 1-28, pl. 1 and 2.

Wilson, C. B.

1900. Our North-American Echiurids. A. Contribution to the habits and Geogr. Range of the Group. Biol. Bull., 1, p. 163-178, 1 pl.

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Part D: Gephyrea. By Ralph V. Chamberlin. *(In press).*
Part E: Acanthocephala. By H. J. Van Cleave. *(In press).*
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Part H: Cestoda. By A. R. Cooper. *(In preparation).*
Part I: Turbellaria. By A. Hassell. *(In preparation).*
Part J: Gordiacea.
Part K. Sporozoa. By J. W. Mavor. *(In preparation).*
Part M: Foraminifera. By J. A. Cushman. *(Issued).*

### Volume X: Plankton, Hydrography, Tides, Etc.

Part A: Plankton. Marine Diatoms.
Part B: Tidal Observations. By W. Bell Dawson. *(In press).*
Hydrography.